A novel structure of microstrip coupled bandstop filter based on shorted step-impedance transmission lines

P. Booppha, R. Phromloungsri, S. Srisawat, N.Pornsuwancharoen

Abstract

This paper presents a novel structure of microstrip coupled bandstop filter based on shorted step-impedance transmission lines (SITL). The modified coupled lines with SITL have bandstop frequency response, which can be used for bandstop filter implementation. To verify the satisfaction between theory and experiment, a 1.8 GHz bandstop filter is fabricated on FR4 substrate. The measurement results show -31.85 dB insertion and –7.74 dB return loss.

Keywords: Bandstop filter, step-impedance, inductivity element.